

Applicant: Darrel L. Turner
Application No.: 08/899,198
Art Unit: 3616

rates of 3,000 rpm and higher." Hence the speed at which a rotary blade can strike a stationary object can approach 200 miles per hour. As discussed in applicant's specification, high *impact* toughness, as measured by the Charpy Notched Impact Toughness Test per ASTM E-23, is needed to address the requirements of a rotary blade. The claims have been amended to add this material limitation.

There is no suggestion in the *Trudeau* reference that the specified 15B30 material has high *impact* toughness. Some materials which have slow strain rate toughness could still have poor high impact toughness. Assuredly, depending on the treatment of the material, it may have good slow strain rate toughness and high impact toughness. However, the *Trudeau* reference does not teach high impact toughness nor would it suggest to one skilled in the art of mower blade or mower construction the desirability of using such a material.

It is further noted with respect to the specific material limitations of Claim 2, that the *Trudeau* reference discloses 15B30 boron steel, which is outside of the Markush group of Claim 2, and which does not suggest the materials of Claim 2.

Applicant respectfully submits that the rejections under 35 U.S.C. section 102 are fully overcome, in that each claim is limited to a *rotary* cutting blade or a mower with a rotary cutting blade. No single reference discloses a boron steel rotary cutting blade or mower with rotary cutting blade. Furthermore, the claims as amended present specific nonobvious limitations, as the Charpy notch toughness limitations are not suggested or taught in the *Trudeau* reference.

The preamble language of the amended claims is entitled to be accorded patentable weight. The terms "mower" and "rotary cutting blade" in claims 11 and 1 respectively, are essential to point out the invention defined by the claims. In examining the claims, it is submitted that these words in the preambles "give life and meaning" to the claims. In its analysis of the weight to be given preamble language, the Court of Customs and Patent

Applicant: Darrel L. Turner
Application No.: 08/899,198
Art Unit: 3616

Appeals stated that usually in cases in which preamble language was necessary to give life, meaning and vitality to the claims, "there inhered in the article specified in the preamble a problem which transcended that before prior artisans and the solution of which was not conceived by or known to them. The nature of the problem characterized the elements comprising the article, and recited in the body of the claim or count following the introductory clause, so as to distinguish the claim or count over the prior art." *Kropa v. Robie and Mahlman*, 88 USPQ 478, 480 (C.C.P.A 1951). In applicant's invention, the problem which inhered in the rotary cutting blade was providing such a blade which would last longer, be harder, and more durable without compromising the impact strength in such a way as to cause the blade to fail in the brittle mode. The body of the claims in this application presents the solution to this problem.

"The effect preamble language should be given can be resolved only on review of the entirety of the patent to gain understanding of what the inventors actually invented and intended to encompass by the claim." *Corning Glass Works vs. Sumitomo Electric*, 9 USPQ2d 1962, 1966 (Fed. Cir. 1989). A review of the present application provides understanding of what the inventors actually invented. From the field of the invention ("The present invention relates to... rotary mower and cutter blades which must resist impact loads in particular"), to the background ("what is needed is a rotary cutting blade which presents high hardness to increase wear life, while at the same time exhibiting acceptable toughness levels to insure satisfactory operation and passage of standard blade impact tests."), to the summary (" it is an object of the present invention to provide a rotary blade..."), to the specification (" the rotary cutter blade 20 of this invention is imparted with both high hardness and acceptable toughness by heat treating boron steel blanks to cause a metallurgical change in the blade structure."), the entirety of the application makes clear what it was that the inventor intended to encompass by the claims.

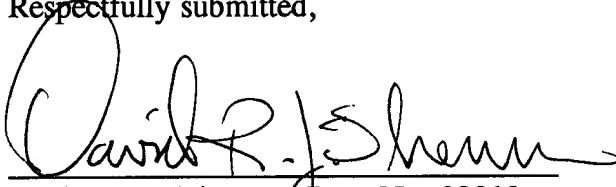
Applicant: Darrel L. Turner
Application No.: 08/899,198
Art Unit: 3616

Applicant believes that no new matter has been added by this amendment.

Applicant submits that the claims, as amended, are in condition for allowance.

Favorable action thereon is respectfully solicited.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "David R. J. Stiennon", written over a horizontal line.

David R. J. Stiennon, Reg. No. 33212

Attorney for Applicant

Lathrop & Clark LLP

740 Regent Street, Suite 400

P.O. Box 1507

Madison, Wisconsin 53701-1507

(608) 257-7766

files.http/amdt